

# 4HM6

## Sharp-Cutoff Pentode

### 9-PIN MINIATURE TYPE

#### GENERAL DATA

##### Electrical:

##### Heater Characteristics and Ratings:

Current. . . . .	0.450 ± 0.030	amp
Voltage (AC or DC) at heater amp- eres = 0.450 . . . . .	4.2	volts
Warm-up time (Average) . . . . .	11	sec
Peak heater-cathode voltage:		
Heater negative with respect to cathode . . . . .	200 max.	volts
Heater positive with respect to cathode . . . . .	200 max.	volts

##### Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield<sup>a</sup></i>	
Grid No.1 to plate . . . . .	0.031	0.024	pf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater . . . . .	8.7	8.7	pf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater . . . . .	2.15	3.0	pf

##### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Supply Voltage . . . . .	125	volts
Grid No.3 (Suppressor Grid). . . . .	<i>Connected to cathode at socket</i>	
Grid No.2 Supply Voltage . . . . .	125	volts
Cathode Resistor . . . . .	56	ohms
Plate Resistance (Approx.) . . . . .	0.156	megohm
Transconductance . . . . .	15000	μmhos
Plate Current. . . . .	13	ma
Grid No.2 Current. . . . .	3.2	ma
Grid No.1 Voltage, (Approx.) for transconductance (μmhos) = 100 . . . . .	-3	volts

##### Mechanical:

Operating Position . . . . .	Any
Type of Cathode. . . . .	Coated Unipotential
Maximum Overall Length . . . . .	2-3/16"
Maximum Seated Length. . . . .	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) 1-9/16" ± 3/32"	
Diameter . . . . .	0.750" to 0.875"
Dimensional Outline. . . . .	See <i>General Section</i>
Bulb . . . . .	T6-1/2
Base . . . . .	Small-Button Noval 9-Pin (JEDEC No.E9-1)



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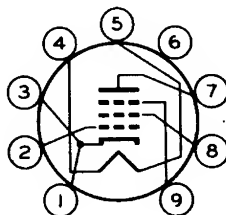
Harrison, N. J.

DATA  
8-63

# 4HM6

Basing Designation for BOTTOM VIEW. . . . . 9PM

Pin 1 - Cathode  
Pin 2 - Grid No.1  
Pin 3 - Cathode  
Pin 4 - Heater  
Pin 5 - Heater  
Pin 6 - No Internal  
Connection



Pin 7 - Plate  
Pin 8 - Grid No.2  
Pin 9 - Grid No.3,  
Internal  
Shield

## AMPLIFIER - CLASS A<sub>1</sub>

### Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE. . . . . 250 max. volts  
GRID No.2 (SCREEN-GRID) SUPPLY VOLTAGE . . . 250 max. volts  
GRID No.2 VOLTAGE. . . . . See *Grid-No.2 Input*  
*Rating Chart* at front of Receiving Tube Section

GRID-No.1 (CONTROL-GRID) VOLTAGE:

Negative-bias value. . . . . 50 max. volts  
CATHODE CURRENT. . . . . 25 max. ma

GRID No.2 INPUT:

For grid-No.2 voltages up to 125 volts . . 0.6 max. watt

For grid-No.2 voltages between 125 and

250 volts. . . . . See *Grid-No.2 Input*  
*Rating Chart* at front of Receiving Tube Section

PLATE DISSIPATION. . . . . 2.5 max. watts

### Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation . . . . . 0.25 max. megohm

For cathode-bias operation . . . . . 1 max. megohm

<sup>a</sup> With JEDEC shield No.315 connected to ground.

